

What is claimed is:

1. An optical projection system comprising:
  2. a plurality of light sources producing a plurality of images;
  3. means for superimposing at least two of the images, and
  4. means for tiling at least two of the images.
1. 2. An optical projection system according to claim 1 in which the tiling means  
2. comprises means for providing enhanced blending in overlapped regions of the tiled images.
1. 3. An optical projection system according to claim 2 in which the tiling means  
2. comprises a pyramid prism.
1. 4. An optical projection system according to claim 3 in which the pyramid prism  
2. comprises a plurality of sides and an apex, the plurality of sides functioning to combine  
3. images and the apex functioning to decrease intensity of illumination to provide the enhanced  
4. blending in the overlapped regions.
1. 5. An optical projection system according to claim 4 further comprising a  
2. projection lens for projecting superimposed, tiled images.
1. 6. An optical projection system according to claim 1 in which each of the  
2. plurality of light sources comprises a DMD.
1. 7. An optical projection system according to claim 5 in which the projection lens  
2. defines an optical axis and in which position of the pyramid prism relative to the optical axis  
3. can vary.
1. 8. An optical projection system according to claim 2 further comprising at least  
2. one polarizing beam splitter interposed optically between at least one light source and the  
3. pyramid prism
1. 9. An optical projection system according to claim 8 in which the polarizing  
2. beam splitter has a reflective and a transmissive face and is interposed optically between the

3 pyramid prism and two light sources, images from one of the two light sources being directed  
4 to the reflective face and images from the other of the two light sources being directed to the  
5 transmissive face.

1 10. An optical projection system according to claim 1 further comprising a pre-  
2 modulator.

1 11. An optical projection system according to claim 5 further comprising an edge  
2 mask interposed optically between the pyramid prism and the projection lens.

1 12. An optical projection system according to claim 8 further comprising a  
2 combining polarizing beam splitter and an additional polarizing beam splitter interposed  
3 optically between at least one light source and the combining polarizing beam splitter.

1 13. An optical projection system according to claim 9 further comprising a system  
2 of relay lenses that act to permit adjustment of the magnification of the images from each of  
3 the light sources.

1 14. An optical projection system according to claim 1 in which the tiling means  
2 comprises a plurality of mirrors, further comprising a plurality of projection lenses associated  
3 therewith.

1 15. A method of projecting a plurality of images, the method comprising:  
2 a. creating the plurality of images;  
3 b. superimposing at least two of the images, and  
4 c. tilting at least two of the images.

1 16. An optical system comprising:  
2 a. a light source;  
3 b. a relay lens;  
4 c. a prism interposed optically between the light source and the relay  
5 lens and  
6 d. an edge mask positioned optically after the relay lens.

1            17. An optical system according to claim 16 in which the relay lens locates an  
2    image at a particular location and in which the edge mask is positioned at the plane of the  
3    image.

1            18. An optical system according to claim 17 further comprising a shading mask  
2    interposed optically between the relay lens and the image location.

1            19. An optical system according to claim 5 further comprising a second plurality  
2    of light sources producing a second plurality of images and a second projection lens for  
3    projecting the second plurality of images or images derived therefrom.